

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An isolated protein comprising the amino acid sequence of SEQ ID NO: 2.

2. (Currently Amended) An isolated protein ~~functionally equivalent to a protein comprising the amino acid sequence of SEQ ID NO: 2, wherein said protein is selected from the group of (a) and (b), wherein: (a) is a protein comprising the amino acid sequence of SEQ ID NO: 2, wherein up to 30 10 amino acids are deleted, added, inserted and/or substituted with different amino acids, wherein said protein has protease activity; and (b) is a protein encoded by DNA that hybridizes under the stringent conditions of 42°C, 2x SSC, 0.1% SDS to the complement of a DNA comprising the nucleotide sequence of SEQ ID NO: 1.~~

3. (Canceled)

4. (Currently amended) A fusion protein comprising the ~~first~~ protein according to any one of claims 1 and 2claim 1 or 2, fused with a ~~second~~ ~~other~~ peptide.

5. (Currently amended) An isolated DNA molecule ~~encoding the protein according to any one of claims 1 to 3 selected from the group consisting of:~~

(a) a DNA comprising the nucleotide sequence of SEQ ID NO: 1;

(b) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 2;

(c) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 2, wherein up to 10 amino acids are deleted, added, inserted and/or substituted with different amino acids, and wherein said protein has protease activity; and

(d) a DNA which hybridizes under the stringent conditions of 42°C, 2xSSC, 0.1% SDS to the complement of a DNA comprising the nucleotide sequence of SEQ ID NO: 1, wherein said protein has protease activity.

6. (Currently amended) A vector ~~into which comprising~~ the DNA according to claim 5 ~~is inserted~~.

7. (Currently amended) A ~~transformant having transformed cell comprising~~ the DNA according to claim 5 in an expressible form.

8. (Currently amended) A method for producing the protein according to ~~any one of claims 1 to 3~~ claim 1 or 2, said method comprising the steps of: culturing the ~~transformant transformed cell~~ according to claim 7, and recovering the expressed protein from the ~~transformant transformed cell~~ or the culture supernatant thereof.

9. (Withdrawn-Currently amended) A method of screening for a substrate of the protein according to ~~any of claims 1 and 2~~ claim 1 or 2, said method comprising the following steps of:

- (a) contacting a test sample with said protein;
- (b) detecting the protease activity of said protein against the test sample; and
- (c) selecting a compound that is digested or cleaved by said protease activity.

10. (Withdrawn) A substrate of the protein according to any of claims 1 and 2, wherein said substrate can be isolated by the method according to claim 9.

11. (Withdrawn-Currently amended) A method of screening for a compound capable of inhibiting the activity of the protein according to ~~any of claims 1 and 2~~ claim 1 or 2, said method comprising the following steps of:

- (a) contacting the protein with the substrate identified by the method of claim 10-9 in the presence of a test sample;
- (b) detecting the protease activity of the protein against the substrate; and
- (c) selecting a compound that reduces the protease activity relative to the protease activity detected in the absence of the test sample.

12. (Withdrawn) A compound that inhibits the activity of the protein according to any of claims 1 and 2, wherein said compound can be isolated by the method according to claim 11.

13. (Withdrawn) An antibody that binds to the protein according to any of claims 1 and 2.

14. (Withdrawn) A method for detecting or assaying the protein according to any of claims 1 and 2, said method comprising the steps of: contacting the antibody according to claim 13 with a test sample that is anticipated to contain the protein; and detecting or assaying formation of the immune-complex between the antibody and the protein.

15. (Canceled)